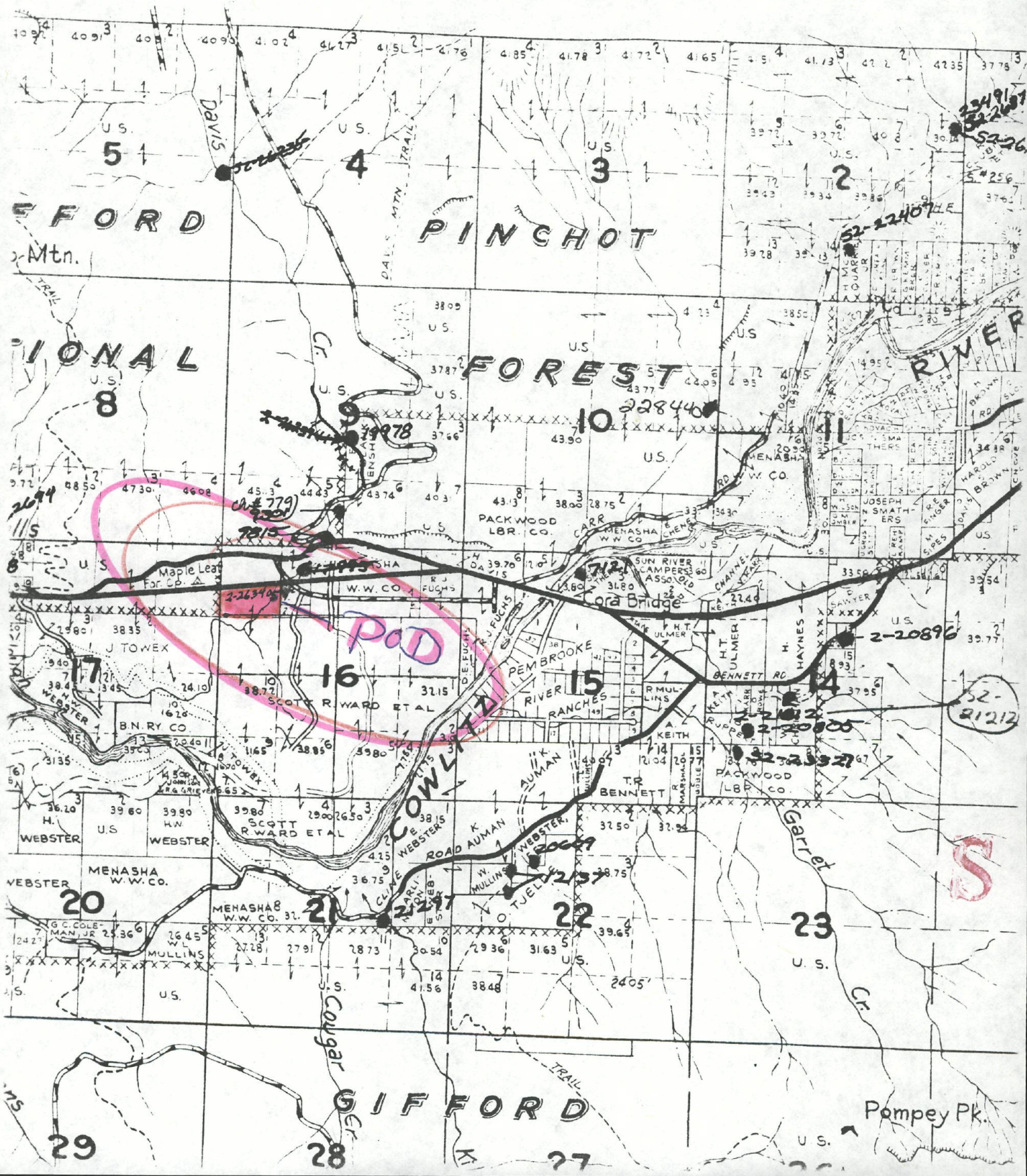


DATED: JULY 1975



Bob Beckner

WOW

274-9814

centerline US Hwy 12

10' Phone line
5' Pole -

#10
-1.0

#9.0

Fence

#8.4.1

#1.2.6

#5.2.8

#6.4.5

House

5'

Temporary
Davis Ck
water flow
center line of
Powerline

Power
Pole

True Davis Ck.
Channel (filled)

#3.2.0

#4.3.3

500'
200'
100'
Benchmark
0'
-100'
-200'

75 mm = 4.76 ft

1 mm = 5.55
4.52'

stream grade
B to D

Benchmark 200' #1
32' = 2.6'
400' C
55' = 4.6'
600' D
100' = 8.3'

0" = B = Benchmark water level 6-22-91

+32" = #1 = water level

+3" = #2 = surface of filled, true Davis Ck. channel

-31" = #3 = surface of filled " " " (a natural ditch in channel)

-4" = #4 = field, filled

+34" = #5 = forest, filled

+54" = #6 = lawn, fill removed

+16" = #7 = water level

+49" = #8 = forest, filled

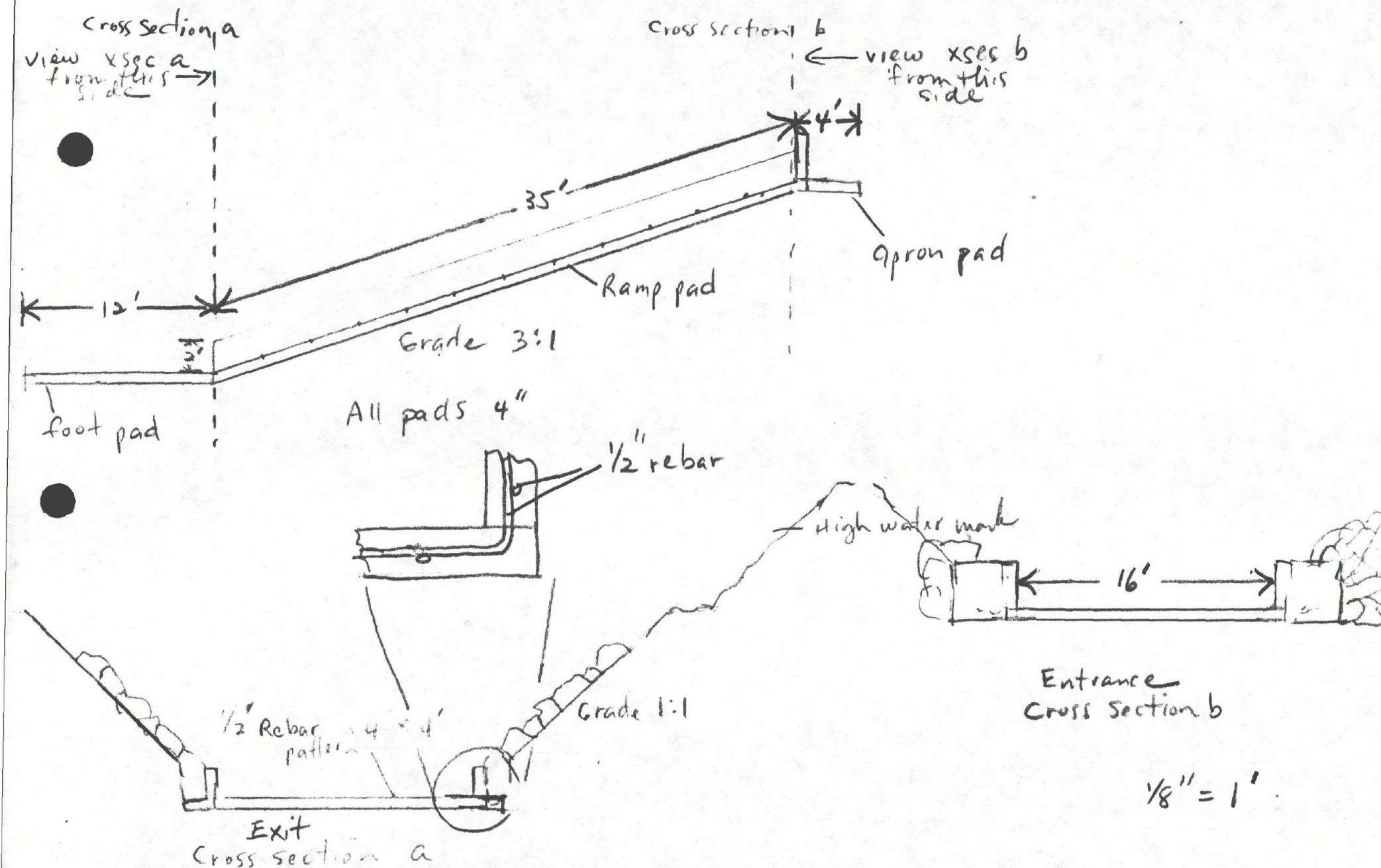
0" = #9 = field, no fill

-12" = #10 = field, fill

S

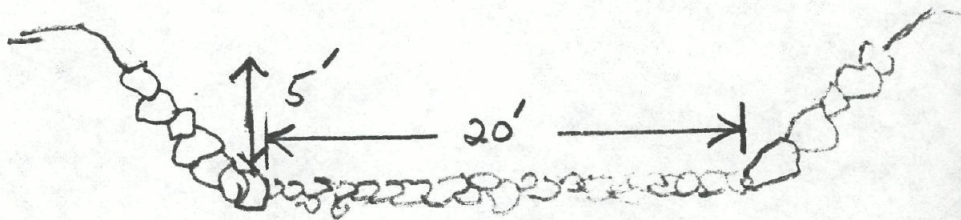
1 mm = 4.52 ft

Inlet Spillway to Gravel/Debris Collection Pond

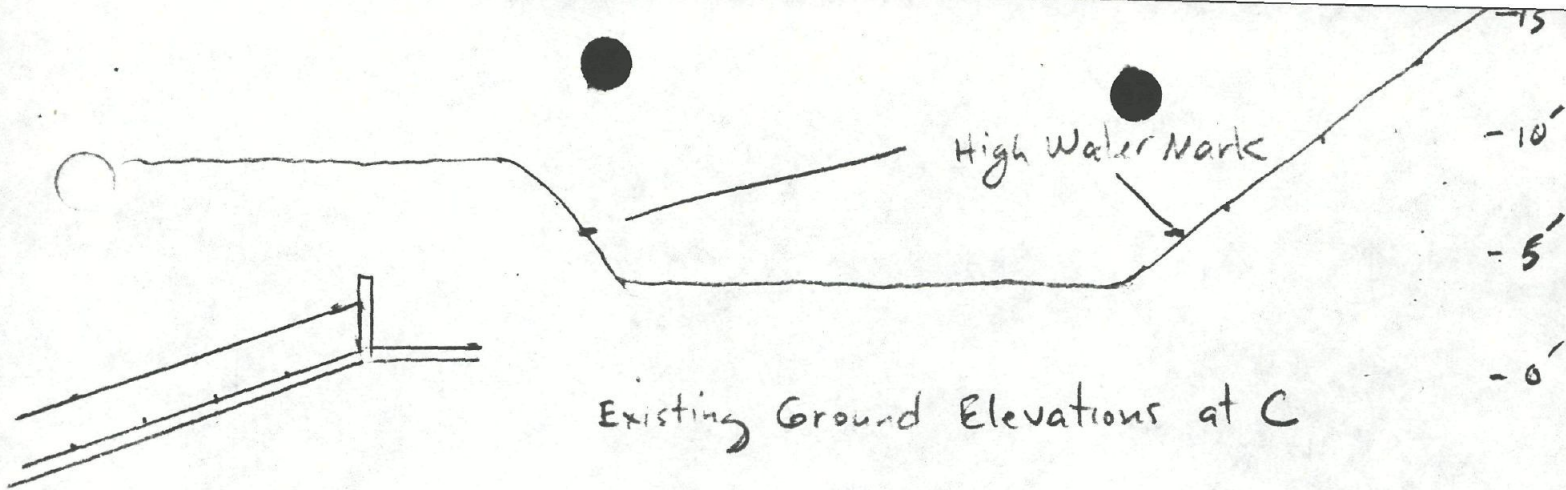


Outlet Spillway from Gravel/Debris Collection Pond

Cross section C

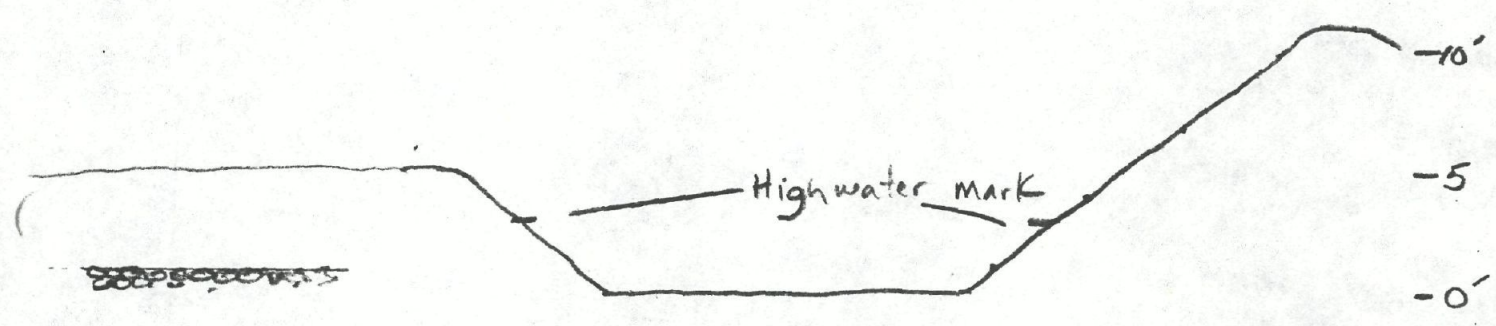


Cross section C



Existing Ground Elevations at C

Actual elevation
of inlet spillway in relation
to existing ground elevations

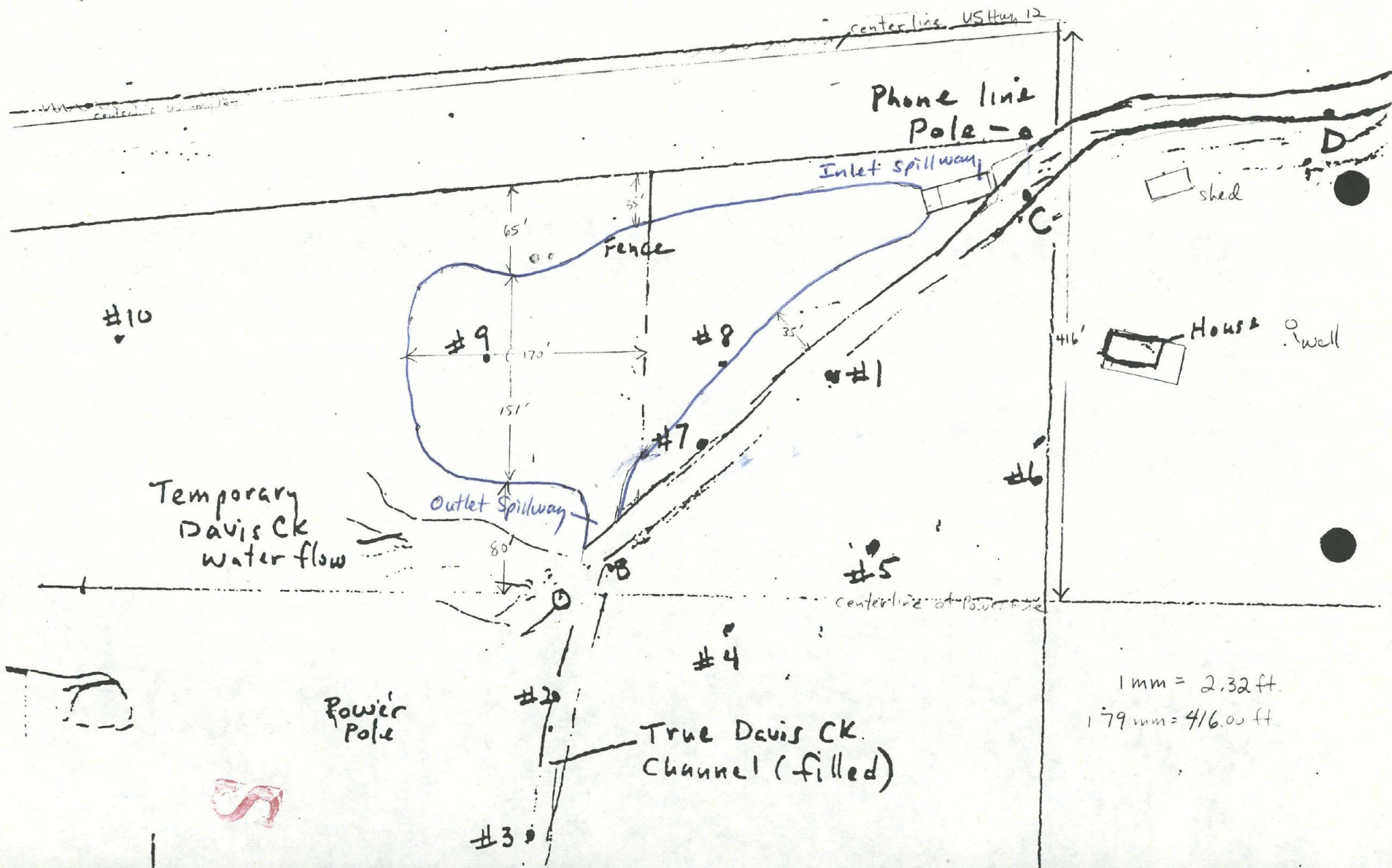


Existing Ground Elevation at B

Actual elevation
of outlet spillway
in relation to existing
ground elevations

scale $\frac{1}{8}'' = 1'$

S



ruining hundreds of acres of pasture and the neighbors were threatened. One family had water in their home.

In 1977 the river left its channel and a cat provided by a grant from the Soil Conservation Service attempted to lower the channel. Large piles of rock were left on either side of the creek but as natural debris accumulated in the stream bed after each year's high water season, the water left the channel several more times during the eighties.

During this last flood 12,000 cubic yards of gravel were deposited in and along the stream bed adjacent to our home alone. This amount of gravel in the channel slowed the flow enough that the creek could no longer push its load. Thus everything was dropped, diverting most of the water at our house.

This filling process has been going on for years. As the process continues to move upstream, the next threatened area will be the Davis Creek bridge over US Highway 12. The State has already committed to cleaning out the area in the right of way but this is not a permanent solution.

THE PROPOSED SOLUTION

Stated simply, the solution requires prevention of the cause of the flooding, the deposition of the gravel and debris.

Firstly, Davis Creek must be cleaned and restructured to its previous, normal form.

Secondly, a one acre by 12 foot debris/gravel collection pond must be dug.

In the eighties, I worked with a little dam project to feed my state-approved irrigation system in the creek by my home. It was only a hobby but it taught me a lot about fast-flowing mountain streams and working within State Dept. of Ecology and Fish and Wildlife regulations. I made a little two foot high dam with cable, wire, and plastic that caused two feet of fill to deposit behind the dam. Every time a powerful winter flow dislodged the cable, all the fill

washed away. After several repairs and deposition seasons and then cable failures in following years I became convinced that force of the water during flood seasons was enough to scour the gravel past my place leaving the normal stream bed after a flood.

Please remember, "It was 1) the deposited rock below our property that 2) slowed the stream to the point that it dumped its load of gravel in the stream bed near our house thus 3) diverting the flow of water at our house." Removal of the debris from the creek is required to reestablish the vitality of Davis Creek. But that alone is not going to solve the problem. Debris removal from the stream bed would have to be repeated regularly keeping the stream ecosystem in constant turmoil.

Fortunately the construction of a

S

debris/gravel collection pond would be both an economical and a long-term solution. The one acre by 12 foot debris/gravel collection pond located just past our house at a natural bend in Davis Creek would prevent the stream from accumulating more fill. During the rapid flow of flooding, the gravel from the creek would flow into the hole rather than turn the corner. The gravel would fill the hole and the water would return to the natural stream bed.

Once the hole is filled with debris, the gravel could be removed during the summer without injury to Davis Creek.

If the current channel were properly cleaned and restructured into its natural pattern, and if the debris/gravel collection pond were built, the creek would no longer be devastated annually and could return to its previous vitality.

THE CONSTRUCTION PLAN

Davis Creek Debris/Gravel Removal - 3000 feet from the Davis Creek bridge on US Hwy 12, a large, crawler type excavator (back hoe) would remove the gravel and load it onto a dump truck. The process would start at the lower end of area proposed for clean-out, the downstream portion closest to the Cowlitz. The loaded truck would drive in the stream bed on the gravel to the property described at the beginning of this document. In the ten acre field, the gravel would be dumped for screening and/or crushing. As the process moves toward the US Hwy 12 end of the cleanup area, the stream bed would be reshaped to Fisheries Department specifications and existing rip rap would be repositioned if necessary. Under normal weather conditions, in July through September, the lower 2000 feet will be stone dry and the upper 1000 feet will flow less than 3 gallons per second.

Debris/Gravel Collection Pond - The banks of the pond will taper at 1:1 to a depth of 12 feet below the depth of the inlet. The area would be one acre with the mature maples (some two to three feet DBH), alders, douglas firs, and tall brush left on the periphery for shade. Elevations in the few low areas would be filled to three feet above 0 elevation.

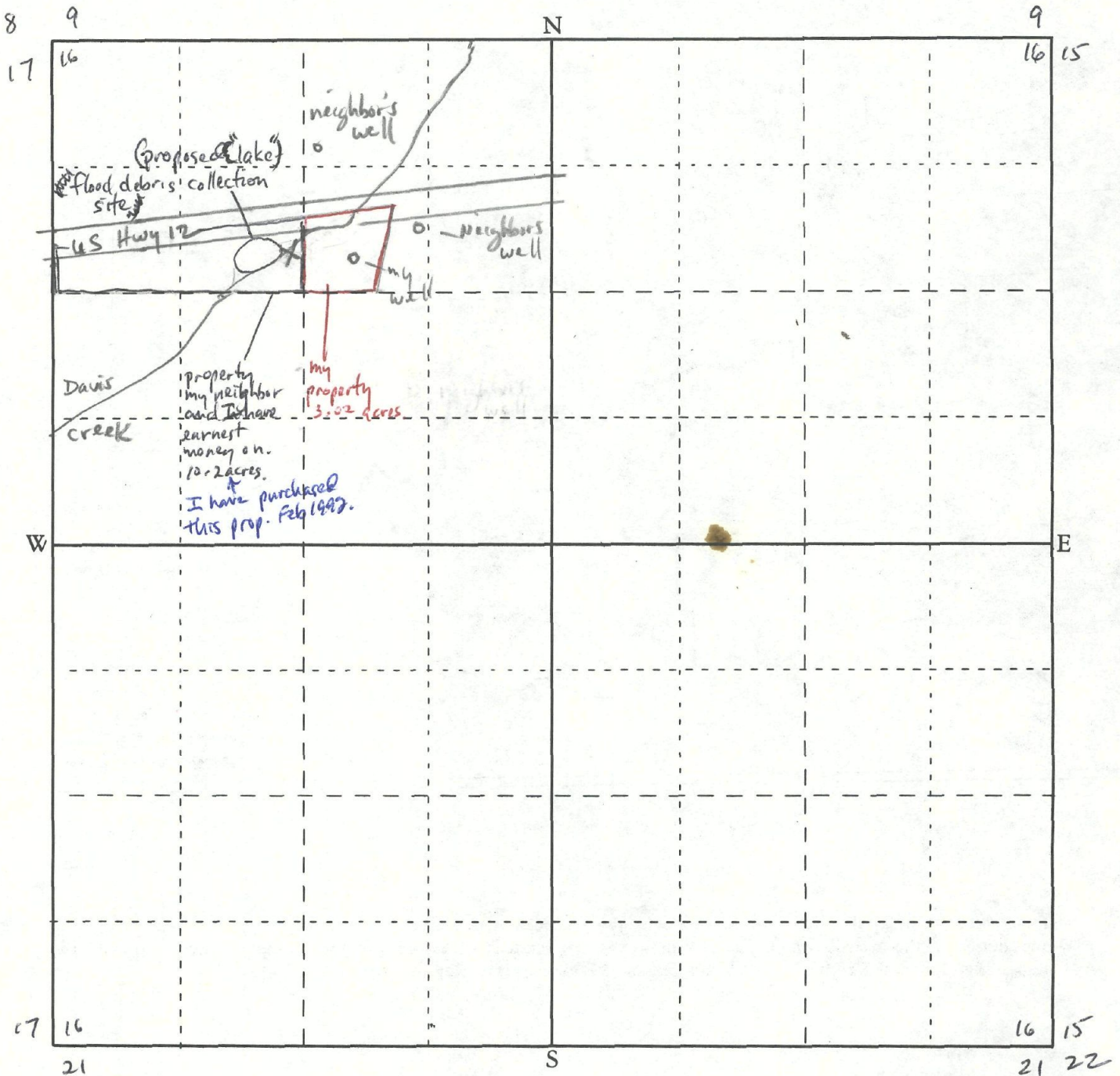
The inlet spillway would be constructed of reinforced concrete with a four by twenty foot apron pad on top. A sixteen foot wide ramp, thirty-five feet long with a 1:3 incline, would have a two foot concrete wall down either side to hold the rip rap armor that protects the 1:1 sides. The foot would be a twelve by twenty foot reinforced concrete pad. All concrete pads are four inches in depth. Both the entrance and the foot would be armored with rip rap.

The outlet spillway would be constructed of 1:1 sides armored with rip rap. It would be twenty feet wide at the depth of the natural stream bed. The outlet spillway would be oriented to send the water back into Davis Creek with no turns as is allowed by the natural configuration of the stream.

8

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SECTION MAP

Sec. 16 Twp. 12 N N. R. 8 E

Scale: 1 inch = 800 feet (each small square = 10 acres)

Show by a cross (X) the location of point of diversion (surface water source) or point of withdrawal (ground water source): For ground water applications, show by a circle (O) the locations of other wells or works within a quarter of a mile.

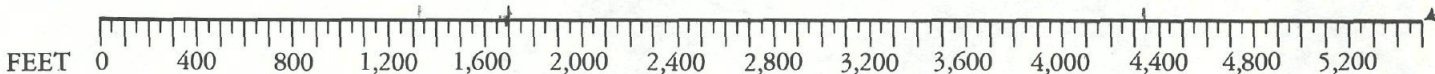
Indicate traveling directions from nearest town in space below.

Follow:

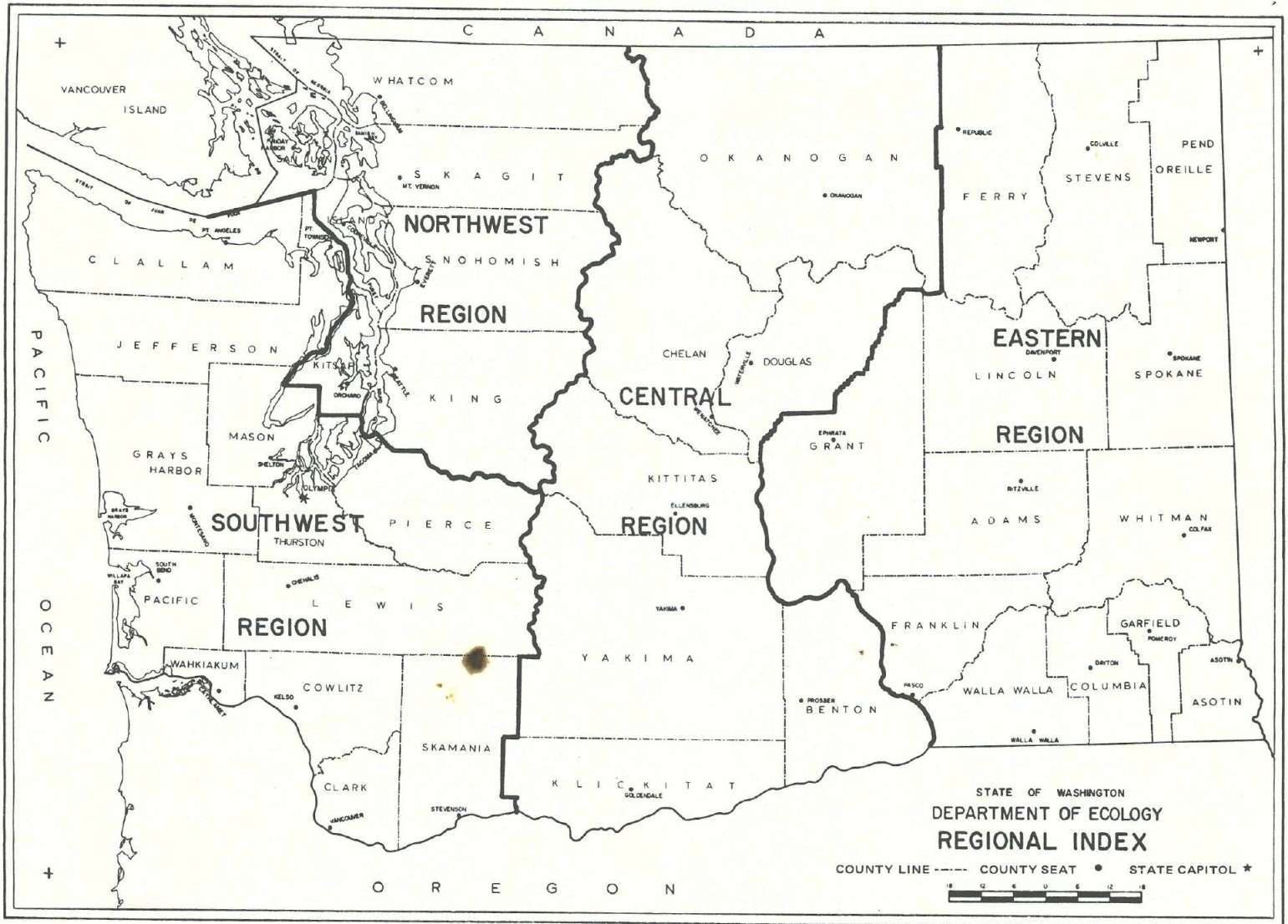
- US Hwy 12 for six miles East from Randle
- Turn on first driveway East of the Davis Creek bridge (one mile before the Cora Bridge over the Cowitz River)
- Our Driveway is between mile posts 121 and 122

Detach here

Fold along scale



Detach this scale at the perforation, fold excess paper under or cut off excess by cutting along the scale line. This scale corresponds to the SECTION MAP above. You can read feet directly from this scale to outline property and locate points of diversion or withdrawal on the SECTION MAP. Enclose this map along with the application and \$10.00 examination fee.



Your water right application will be processed by the Regional Office of the Department of Ecology having jurisdiction in the area in which your water works are located. **Please submit your completed application form, maps, sketches and \$10.00 examination fee to the appropriate Regional Office.**

Northwest Regional Office
4350 150th Avenue N.E.
Redmond, Washington 98502 - 5301
Tel. (206) 867-7000

Central Regional Office
3601 West Washington
Yakima, Washington 98903 - 1164
Tel. (509) 575-2490

Southwest Regional Office
7272 Cleanwater Lane
Olympia, Washington 98504 - 6811
Tel. (206) 753-2353

Eastern Regional Office
N. 4601 Monroe, Suite 100
Spokane, Washington 99205 - 1295
Tel. (509) 456-2926

The appropriate Regional Office will be happy to answer any further questions you may have.

WASHINGTON STATE
DEPARTMENT OF ECOLOGY

RECEIPT

182165

RECEIVED FROM

John & Carolyn Mullenix

DOLLARS

FUND:

General Rec.Rev. Basic Data Other Cash

SOURCE:

Check

Water Code Publications Adjudications Refunds M.O.

Per. and Lic. Investments Registration Other

By

Laura Hansen

Thank You